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\*\*\*\*THIS IS A NEW I.M. - PLEASE READ CAREFULLY\*\*\*\*

## INSPECTION AND ACCEPTANCE OF GEOCOMPOSITE PAVEMENT DRAINS (FIN DRAINS)

### GENERAL

Geocomposite pavement drains are prefabricated drains placed vertically adjacent to pavement to intercept and remove water from the subbase and subgrade. They consist of a polymer drainage core wrapped in a geotextile filter. They function like a longitudinal subdrain, in which a vertical column of porous backfill is placed above perforated collector pipe in a trench cut at edge of pavement. However, the prefabricated unit replaces both the filtering function of porous backfill and the water removal function of subdrain pipe. Pavement edge drain requires a trench for placement, and is backfilled with native material removed during trenching.

Pavement edge drains are used instead of regular longitudinal subdrain where:

- a) Shallow limestone bedrock makes typical trenching depths impractical
- b) Silty loess soils would enter into and clog porous backfill and perforated pipe
- c) Other design conditions preclude longitudinal subdrain

Details of placement of pavement edge drain and trench backfill will be shown on the project plans.

### ACCEPTANCE

Acceptance of pavement edge drains shall be based on manufacturer and brand name approval. Approved manufacturers and brand names are listed in [Appendix A](#).

### MANUFACTURER AND BRAND NAME APPROVAL

To obtain approval, the manufacture shall submit the following information to the Office of Materials:

- 1. A product sample (three foot, full width sample including the fabric)
- 2. Product identification
- 3. Technical information on use of the product
- 4. Independent lab results showing the following properties:

<u>Property</u>	<u>Specification</u>	<u>Test Method</u>
Core compressive Strength	40 psi minimum	ASTM D 1621
Core flow rate @ 1500 lb/ft <sup>2</sup> and 0.10 gradient	15 gal/min/ft	ASTM D 4716

The fin drain shall be wrapped in a fabric that is listed in [Instructional Memorandum 496.01](#) for subsurface drainage, and meets specification [4196.01](#) paragraphs B.

The Soils Section of the IDOT Office of Design shall review the product sample, physical properties, and past performance for consideration of approval.

#### **MONITOR SAMPLING AND TESTING**

Samples may be secured from the project to verify a match with the product previously approved.